REMARKS

This amendment is responsive to the Office Action dated August 8, 2007 and received in this patent application. In the amendment, claims 2 and 5 have been cancelled without prejudice to further prosecution of their subject matter in this or another application, claims 1 and 4 have been amended, and claims 7 and 8 have been added. Claims 1, 3, 4 and 6-8 remain pending in the application. Reconsideration of the pending claims in light of these amendments and the following remarks is respectfully requested.

These amendments add no new matter. The amended features variously recite calculating the respective transmission end times of each of the first packets that compose the real time streams based upon respective time intervals and transmission times of each of the first packets, as well as counting the time intervals of each of the first packets, whereupon requests to transmit each of the first packets are respectively issued. Support for these features is variously found in Applicant's specification as filed, including but not necessarily limited to FIGs. 3, 4 and 10, ¶¶[0057]-[0060], [0098]-[0100], etc. of Applicant's specification as represented in U.S. Pub. No. 2004/0141512 A1.

Claims 1-6 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pub. No. 2004/0114516 A1 to Iwata ("Iwata") in view of U.S. Pat. No. 7,039,063 to Krishnakumar ("Krishnakumar"). This rejection is traversed.

Claim 1 has been amended and now recites: *[a] data transmitting method for transmitting a plurality of real time streams and a non-real time stream over a common transmission path, comprising the steps of:*

storing first packets that compose the real time streams and second packets that compose the non-real time stream;

transmitting the first packets stored at the storing step at predetermined intervals, transmitting a first packet whose transmission end time is the earliest in the first packets when the

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transmission times of the first packets overlap, and transmitting the second packets when the transmission intervals of the first packets are longer than the transmission times of the second packets, wherein the respective transmission end times of each of the first packets that compose the real time streams are calculated based upon respective time intervals and transmission times of each of the first packets; and

> *counting the time intervals of each of the first packets that are stored at the storing step prior to respectively issuing requests to transmit each of the first packets.*

These claimed features are neither disclosed nor suggested by Iwata. Iwata discloses packet scheduling to avoid transmission delay and jitter of a premium packet while still efficiently transmitting a low priority packet. The low priority packet is divided into a plurality of packets each having a length which falls within a transmission interval of the premium packet and scheduled dynamically based on the transmission interval or load state of the premium packet.

As noted by the Examiner, Iwata fails to disclose (at least) the feature of transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap. With regard to amended claim 1, Applicant in particular notes that Iwata fails to disclose (1) "*transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap ...*" or (2) "*wherein the respective transmission end times of each of the first packets that compose the real time streams are calculated based upon respective time intervals and transmission times of each of the first packets,*" or (3) "*counting the time intervals of each of the first packets that are stored at the storing step prior to respectively issuing requests to transmit each of the first packets,*" as recited in claim 1.

Krishnakumar does not remedy the deficiencies of Iwata. The Action states that "Krishnakumar shows in fig. 5, transmitting first packet RT1 whose transmission time is the earliest of group of real time packets RT1-RT4, in which the transmission times overlap." Applicant

respectfully disagrees with this characterization of Krishnakumar, at least to the extent that it is relied upon for disclosing the above-noted claim features.

Krishnakumar discloses priority access for real time traffic in a contention based network. FIG. 5 illustrates timing involving "linked-list chain" transmission, wherein multiple real-time stations (*e.g.*, RT1 through RT4) are all active, and wherein a current station of a chain invites the next station. (6:49-51 *et seq.*). Thus, for example, a subsequent real-time station in the chain (*e.g.*, RT3) transmits in dependence upon whether it "sees" a transmission from the previous station (RT2). If station RT2 is ready to drop its connection, then it indicates this in a last packet, which prompts RT1 to invite RT3 as the next participant in the chain of transmission. (See, *e.g.*, 7:14-30). Also described is a blackburst mechanism that accommodates for situations where a station unexpectedly discontinues transmission (*i.e.*, does not indicate as such in a last packet).

Thus, Krishnakumar does not disclose "*transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap ...*" or particularly doing so based upon "*wherein the respective transmission end times of each of the first packets that compose the real time streams are calculated based upon respective time intervals and transmission times of each of the first packets.*" Of course, in circumstances the Krishnakumar could entail transmission of the first packet whose end time is the earliest, but this is not done according to a scheduling, and in any event is clearly not done via calculation of the end times based upon the respective time intervals and transmission times of the first packets.

Additionally, in Krishnakumar there is no "*counting the time intervals of each of the first packets that are stored at the storing step prior to respectively issuing requests to transmit each of the first packets,*" as recited in claim 1. While Krishnakumar discloses a timer, this timer is used in connection with list maintenance and is not used to count-down a time period whereupon a <u>request to transmit</u> is issued, as claimed by Applicant. Instead, as noted above, Krishnakumar discloses the linked-list chain wherein the current station invites the next station.

Thus Iwata and Krishnakumar, whether alone or in combination, fail to disclose various claimed features, and a *prima facie* case of obviousness for claim 1 has not been presented. For reasons similar to those provided regarding claim 1, clam 4 is also neither disclosed nor suggested by the relied upon references.

Dependent claims 3 and 6 are also not disclosed, for their incorporation of the features respectively recited in their independent claims, as well as for their separately recited features. Particularly, Applicant disagrees with the conclusion that dividing a low priority packet into a plurality of packets (in Iwata) in any way discloses *"wherein the transmitting means is configured to treat the transmission times of the second packets multiplied by a positive coefficient that is smaller than 1 as new transmission times of the second packets in case that the second packets are not transmitted while a predetermined number of the first packets are transmitted."* The solution in Iwata does not appear to have anything to do with applying a multiplier to transmission times, or particularly a multiplier that comprises a positive coefficient that is smaller than one.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 3, 4 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Iwata in view of Krishnakumar.

In view of the foregoing arguments, all claims are believed to be in condition for allowance. If any further issues remain, the Examiner is invited to telephone the undersigned to resolve them.

This response is believed to be a complete response to the Office Action. However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicants expressly do not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, from which the undersigned is authorized to draw, under Order No. SON-2895.

Dated: September 24, 2007   Respectfully submitted,

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